



IRONHOUSE SANITARY DISTRICT

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March 21, 2018

Via Electronic Mail

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SUBJECT: Comments on Tentative Order Amending Waste Discharge Requirements (Order No. R5-2013-0010) for Ironhouse Sanitary District, Ironhouse Water Recycling Facility

Mr. Armstrong and Mr. Merod:

The Regional Water Board issued a Tentative Order (T.O.) on February 26, 2018 that will amend the Waste Discharge Requirements (WDRs) for the Ironhouse Sanitary District (District) Water Recycling Facility (WRF). The T.O. increases the upper pH limit in the WRF's North Pond from 9.0 (at any time) to 10.0 (as a monthly average). The North Pond is used to store fully treated, disinfected tertiary recycled water¹ before distribution to the land application areas for irrigation or to the truck fill station for construction purposes. During sunny, warm weather periods, the pond pH climbs to levels greater than 10.0. The District has determined that moderation of the pH changes is uncontrollable and the periodic high pH levels do not cause impacts to the underlying groundwater or use of the stored water. In a letter to the Regional Water Board dated January 4, 2017, the District requested an upper pH limit increase to eliminate the time/expense of implementing unnecessary control strategies and to avoid unwarranted effluent limit violations.

The Regional Water Board issued the T.O. with the following findings about impacts of North Pond pH levels "...Based on the data, it does not appear that the pH of the North Pond is impacting the pH of underlying groundwater (Finding 6) and "...tertiary UV disinfected

¹ CCR Title 22, Division 4, Chapter 1, Article 1, Section 60301.230

wastewater does not demonstrate reasonable potential to impact groundwater pH or cause or contribute to an exceedance of the applicable water quality objectives due to metal mobilization” (Finding 8). Since the North Pond contains fully treated recycled water and there is no demonstrated impact to groundwater, the District requests removal of the pond pH limitations from the WDRs. In addition, the District requests a programmatic change for Central Valley Regional Water Board permits to remove pH limitations for all ponds that store fully treated effluent. If removal of the pond pH limitations is not possible at this time, the District requests implementation of an annual averaging period to demonstrate compliance with the upper limit.

The following sections provide relevant information to support removal of pond pH limits or a change to the averaging period for evaluating compliance.

NORTH POND pH LEVELS

As specified in Order No. R5-2013-0010, weekly pH monitoring in the North Pond has been conducted since February 2013. The results collected to-date are presented in **Figure 1** and show that North Pond pH has ranged from 7.5 and 10.5.

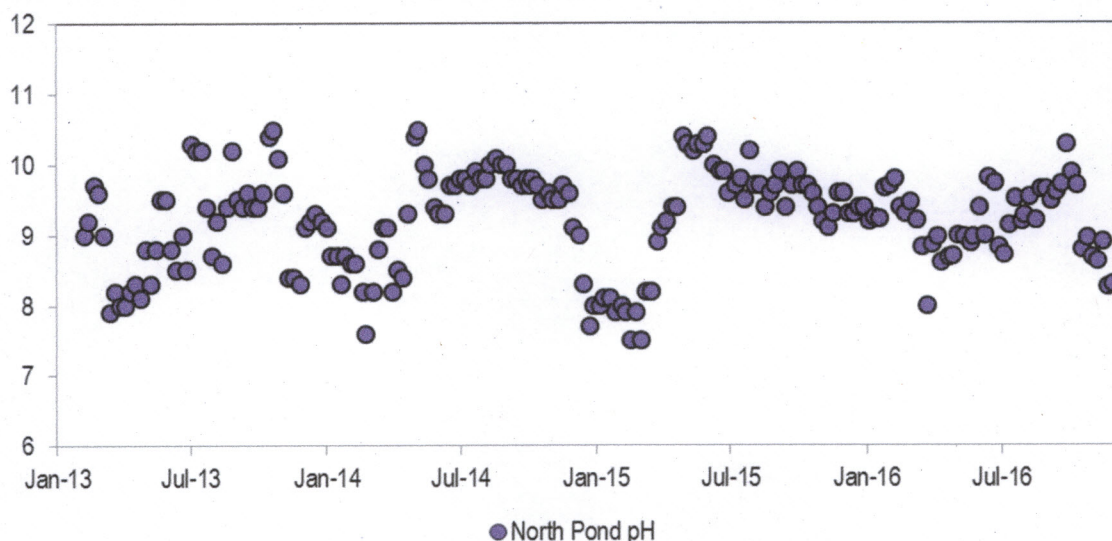


Figure 1. Daily pH Levels in the North Pond

The North Pond monthly average pH levels calculated from monitoring data collected between February 2013 and December 2017 are shown in **Figure 2**. There is only an 88% probability of compliance with the amended upper limit of 10 as a monthly average. This is not sufficient for consistent compliance.

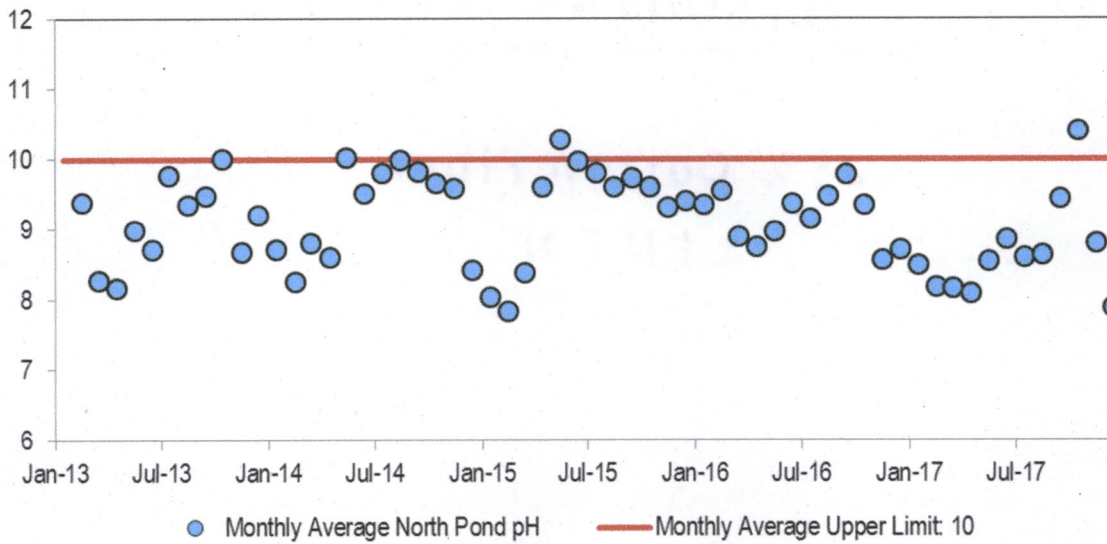


Figure 2. Average Monthly pH Levels in the North Pond

The annual average pH levels in the North Pond from 2013 to 2017 are shown in **Figure 3**. If an upper pH limit must be included in the WDRs, use of an annual average as the compliance assessment period is more appropriate for determining long-term impacts to downgradient groundwater quality.

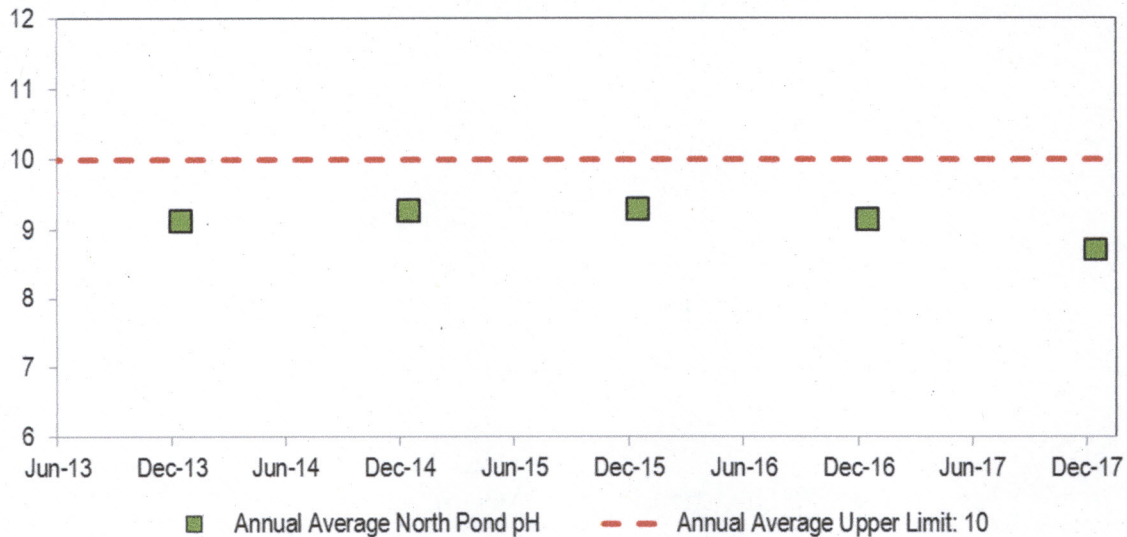


Figure 3. Annual Average pH Levels in the North Pond

MODIFICATIONS TO THE TENTATIVE ORDER AMENDMENT

The District requests the following modifications to the T.O. ~~Strike-through~~ is used for requested deletions and under-line is used for requested additions.

The District's preferred modification:

Provision C.3. - Remove effluent pH limitations for the North Pond, as it is a storage pond and is not impacting the underlying groundwater:

~~3. No wastewater contained in any pond shall have a pH of less than 6.5 or greater than 10.0 as a monthly average.~~

If pond pH limitations can't be removed at this time, the District requests the following modification:

Provision C.3. – Adjust the averaging period used to evaluate compliance with pond pH limitations.

3. No wastewater contained in any pond shall have a pH of less than 6.5 or greater than 10 as an monthly annual average.

Under both modifications, the required monitoring frequency should be made commensurate with the requirements and potential impacts. The District requests a corresponding reduction to storage pond monitoring frequency from weekly to two times per month:

Monitoring and Reporting Program (MRP) - Storage Pond Monitoring

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
pH	Standard	Grab	Weekly <u>2/Month</u>	Monthly

Thank you for considering the information provided in this letter and the District's request for T.O. modifications. We look forward to discussing the permit amendment and any related issues concerning the request. Please feel free to contact me at 925-809-3001 or davisson@isd.us.com.

Sincerely,



Chad Davisson
General Manager

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